REMARKS

Claims 1-20 are pending. The office action rejected claims 16 and 20 under 35 USC 112, claims 1-20 under 35 USC 103, and claims 1, 3 and 7 for double patenting. Claims 16 and 20 have been amended to overcome the rejection of 35 USC 112. However, Applicant traverses the rejection of the application under 35 USC 103 and Double Patenting and request allowance of the application for the reasons below.

The Shafer reference

Applicant address the Shafer reference cited in a corresponding EP application and submitted in an IDS in this response.

Claim 1 of the present invention recites a method for resolving data collision in a network shared by a plurality of users. The method includes calculating a first back-off and a second back-off window based at least in part on a number of collisions that occur within the first back-off window. The step of calculating a second back-off window is not disclosed by the Shafer reference. The Shafer discloses a method where the number of users that collided is used by a weighting circuit to randomly select a back-off window (from a set of back off windows) based upon the output of a random number generator. In other words, the number of collisions is used as a sort of pointer used to randomly select one back-off window from a set of pre-calculated back-off windows. There is no **calculation** of a second back-off window. A collision counter 124 counts how many collisions have occurred (which represent the number of retransmissions to be performed) and provides that number to a weighting circuit 130 which then selects the back-off times in terms of numbers of slots based upon the output of a random number generator. (See column 5, line 34 – column 6, line 2) The output of the weighting circuit is thus the back-off time which is provided to a transceiver. The transceiver then waits the appropriate back-off time prior to attempting a new transmission. In view of the above, independent claims 1, 10 and 17 are clearly distinct from what is disclosed in the Shafer reference. Applicant respectfully asserts that the Shafer reference fails to teach or suggest claims 1, 10 and 17 and their corresponding dependent claims.

Claims Rejections – 35 USC § 112

Claims 16 and 20 have been rejected under 35 USC §112.

Applicant has amended claims 16 and 20 to clarify the subject matter. In particular, the word "between" has been deleted from claim 16 and the words "of approximately" have been deleted from claim 20. No new mater has been added.

Claims Rejections – 35 USC § 103

Claims 1-2 and 8-9 have been rejected under 35 USC §103(a) as being unpatentable over Watanabe and Gummalla. According to the Examiner, Watanabe sends first and second back-off windows to a plurality of users and cites column 8, lines 1-4 for support.

Applicant respectfully traverses the Examiner's reading of Watanabe. Watanabe discloses an apparatus and method for selecting a contention window used for transmitting a packet of data. The Examiner makes specific reference to column 8, lines 1-4 of Watanabe. The text explains that a window is selected by a contention window selector and then provided to the transmitter circuitry 28. However, the text goes on to state that the transmitter circuitry 28 inserts a packet of data into a random access channel within the contention window selected by the selector. (See column 8, lines 21-24) In other words, the contention window is used to transmit packet data but the contention window itself is **not** transmitted.

In sharp contrast, Applicant's invention, as recited in original claim 1, recites a method that includes **sending** first and second back-off windows **to a plurality of user of the network**. For example, in one embodiment as shown in FIG. 1, a collision resolution device 30 sends a back off window to remote devices 14 over a communications links 16. (See page 10, lines 13-15 of the current application) In contrast, Watanabe does **not** send contention windows to users over a communication network or link as in the present invention. Consequently, Watanabe fails to teach or suggest claim 1 of the present invention for at least the above reasons. Moreover, nothing in Gummalla alone or in combination with Watanabe teaches or suggests claim 1. Dependent claims 2 and 8-9 should be allowable for at least the same reasons as independent claim 1.

Claims 3-7, 10-15 and 17-19 have been rejected under 35 USC §103(a) as being unpatentable over Watanabe and Gummalla, and in further view of Chiu. Independent claims 10 and 17 recite similar limitations as claim 1 as discussed above. In particular, claims 10 recites a method and claim 17 recites a system that includes sending first and second back off windows to a plurality of users of a network. Applicant respectfully submits that claims 10 and 17 should be allowable for at least the same reasons as claim 1 above. In addition, dependent claims 3-7, 11-15 and 18-19 should be allowable for at least the same reasons as their independent claims.

Double Patenting

The Examiner has indicated that claims 1, 3 and 7 of the current application conflict with claim 1 of copending application 09/652,153 under Double Patenting.

Applicant respectfully submits that the claimed subject matter in this application is patentably distinct from the subject matter claimed in the copending application. Specifically, claims 1, 3 and 7 of the present invention are non-obvious compared to claim 1 of the copending application. Claim 1 of the present invention relates to calculating a second back-off window based on collisions that occur **within** the first back-off window whereas claim 1 of the copending application deals with collisions **after** the first back-off window.

In particular, claim 1 of the present invention recites a method for resolving data collision in a network shared by a plurality of users. The method includes calculating a first back-off window based at least in part on an estimate of a number of users on the network and a second back-off window based at least in part on a number of collisions that occur **within** the first back-off window.

In contrast, claim 1 of the copending application recites a method that includes sending a first back-off window and then calculating and sending a second back-off window based on at least one operational characteristic of the network. The copending application indicates that a goal of the application is to maintain a constant collision rate which improves throughput. This is achieved by monitoring the number of collisions in reservation slots and then calculating a second back-off window based on the number of

collisions that occur **after** the first back-off window. (See page 4 of the copending application)

Thus, claim 1 of the copending application does not teach or suggest a method that includes second back-off window based at least in part on a **number of collisions that occur within** the first back-off window. Accordingly, Applicant respectfully requests withdrawal of the Double Patenting rejection and allowance of the application.

Information Disclosure Statement

The Examiner has indicated that an IDS submitted on May 3, 2001 fails to comply with 37 CFR § 1.98(a) (1). Applicants have no record of the above mentioned IDS. So to help resolve this issue, Applicant respectfully requests that the Examiner send a copy of the above mentioned IDS in the next communication.

In addition, Applicant submits an IDS under 37 CFR § 1.97 (c) along with the fee set forth in 37 CFR § 1.17(p). The IDS lists the Shafer reference cited in a recent EP action. Applicant addresses the relevancy of the Shafer reference above.

Request for Reconsideration pursuant to 37 CFR 1.111

Having responded to each and every ground for objection and rejection in the Office Action mailed on August 26, 2004, Applicant requests reconsideration in the instant application pursuant to 37 CFR 1.111 and requests that the Examiner allow claims 1-20 and pass the application to issue. Please charge any fee due to our Deposit Account No. 50-1561 , and reference Attorney Docket Number 29633.046100. If there is any point requiring further attention prior to allowance, the Examiner is asked to contact Applicants' counsel who can be reached at the telephone number listed below.

Respectfully,
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